

Rail Enhancement Fund

Final Proposed Projects
December 15, 2005

Karen J. Rae
Director, DRPT

Contents

- ☐ Progress Since July 1, 2005
- ☐ Final Tier I, II and III Projects, as approved by RAB
- ☐ General Contract Conditions
- ☐ Core Assumptions for Public Benefit
- ☐ Final Applications Recommended

Progress Since July 1, 2005



- ☐ May 2005: draft REF policy goals presented to CTB and approved for release for public comments
- ☐ July 1, 2005: Fund enacted and RAB named
- ☐ July 25, 2005: Public meeting to discuss draft policy goals and implementation guidelines
- ☐ Sept. 8, 2005: First RAB meeting
- ☐ Oct. 2005: RAB and CTB approved Policy Goals and Implementation Guidelines
- ☐ Applications period: Sept. 20-Oct. 21
- ☐ Public comments on applications
- ☐ Applications reviewed by DRPT staff
- ☐ Nov. CTB workshop: DRPT presented initial Tier projects
- ☐ Nov. 30, 2005: RAB recommended Tier I projects for funding
- ☐ **Today: DRPT seeks CTB approval of Tier I projects**

Final Tier I, II and III Projects

www.drpt.virginia.gov



Tier I Projects Recommended for Funding

	Work effort to complete project
	Placed into active service

Revised 11-15-05



Tracking Number	Application Project Name Listed in Receipt Order	Applicant	Funding Tier	YEAR					Total REF
				2006	2007	2008	2009	2010	
06-001	Heartland Corridor- Virginia Components	NS	Tier 1	7,500,000	7,500,000	7,350,000			22,350,000
06-002	Commonwealth Railway Line Purchase	CWRY	Tier 1	2,160,000	2,000,000				4,160,000
06-008	APM/Maersk Terminals Rail Yard Expansion	APMTVA	Tier 1	2,400,000	4,600,000	2,300,000			9,300,000
06-009	Suffolk Connection from CSX to Commonwealth Railway	CSX	Tier 1	3,417,300	740,700				4,158,000
06-010	Portsmouth Subdivision Height Clearances	CSX	Tier 1	1,566,600					1,566,600
06-012	North Acca Yard Switches	CSX	Tier 1	2,795,100					2,795,100
06-015 a	Richmond Port Passenger/ Freight Improvements	TDX	Tier 1	140,000					140,000
06-020	Charlottesville Connecting Track Upgrade	BBRR	Tier 1	21,000					21,000
06-022 a	VRE Gainesville-Haymarket Extension Feasibility Study	VRE/NS	Tier 1	700,000					700,000
06-023 a	VRE Cherry Hill Station & Third Track	VRE/CSX	Tier 1	1,750,000	750,000				2,500,000
06-025	Intermodal Improvements- Crewe to Suffolk	NS	Tier 1		1,987,020	2,241,980			4,229,000
DRPT-1	VA/NC Passenger Rail EIS	DRPT	Tier 1	750,000	750,000				1,500,000
	Subtotal for Tier I Projects			23,200,000	18,327,720	11,891,980			53,419,700
	Annual Revenue Estimates			23,200,000	23,700,000	24,200,000			71,100,000
	Percentage of Tier I Projects if Funded			100%	77.33%	49.14%			75.49%

final 12-15-05

Tier II- For Second Round of Funding Consideration

Tracking Number	Application Project Name Listed in Receipt Order	Applicant	Funding Tier	YEAR					Total REF
				2006	2007	2008	2009	2010	
06-005	Andover Siding	NS	Tier 2		1,382,500				1,382,500
06-006	Prince George County Intermodal Facility	NS	Tier 2			3,500,000			3,500,000
06-007	Berryville Siding	NS	Tier 2		2,240,000				2,240,000
06-011	Fulton Yard Wye Track	CSX	Tier 2		1,737,400				1,737,400
06-013	Collier Yard Lead and Wye tracks	CSX	Tier 2		7,903,700				7,903,700
06-014	Milford Crossover Upgrades	CSX	Tier 2		3,670,100				3,670,100
06-015 b	Richmond Port Passenger/ Freight Improvements	TDX	Tier 2		3,950,888				3,950,888
06-022 b	VRE Gainesville-Haymarket Extension Feasibility Study	VRE/NS	Tier 2			20,000,000	20,000,000	20,000,000	60,000,000
06-023 b	VRE Cherry Hill Station & Third Track	VRE/CSX	Tier 2		17,622,000	15,492,000	14,586,000		47,700,000
06-024	Relocate Commonwealth Railway to 164/I-664 Median	CWRY	Tier 2			10,500,000	10,500,000		21,000,000
	Subtotal for Tier II Projects				38,506,588	49,492,000	45,086,000	20,000,000	153,084,588

- Strong projects
- Some additional detail needed
- Out-year construction
- Subject to cost/benefit review

 Work effort to complete project
 Placed into active service

Tier III- Applications Received but not Considered

Tracking Number	Application Project Name Listed in Receipt Order	Applicant	Funding Tier	YEAR					Total REF
				2006	2007	2008	2009	2010	
06-003	Happy Creek Passenger Railway Station	PEG	Tier 3						9,650,000
06-004	Glade Spring Siding Extension	NS	Tier 3						1,732,500
06-016	Crane Siding Installation	BBRR	Tier 3						700,000
06-017	North Mountain Signal System Upgrade	BBRR	Tier 3						1,400,000
06-018	Doswell Diamond Replacement	BBRR	Tier 3						165,000
06-019	Rail Replacements on Afton Mountain	BBRR	Tier 3						525,000
06-021	North Mountain Siding Upgrade	BBRR	Tier 3						105,000
	Subtotal for Tier III Projects Not Considered								14,277,500



Removed from this cycle due to:

- Completion prior to funding
- No clear source of matching funds
- Other issues:
 - Conrail acquisition obligation
 - Signal STB/FRA obligation
 - Other program funding eligibility

Revised 11-15-05

General Contract Conditions

Protecting the investment

- ❑ Will specify that:
 - Cost overruns will not be reimbursed
 - Benefit/Cost must be greater than 1
 - Claw-back provision will apply
 - Virginia's public interest in private facilities will be protected
 - Payments will be made on a reimbursement basis
 - Reporting and audit provisions will apply
- ❑ Applicant will be responsible for:
 - Environmental issues
 - Liability and insurance
 - Construction
- ❑ Special provisions may be specified per project
- ❑ Construction contract conditions do not apply to studies
 - Study contracts will be similar to DRPT study contracts

Core Assumptions for Public Benefit

- ❑ Extremely conservative estimates
- ❑ Figures represent results for first year of operations only
 - Ex: Heartland Corridor is expected to remove 150,000 trucks off the road in 2007, but in 2025 it is expected to increase to 2-3 million trucks off the road
- ❑ 20-year timeframe assumed, unless otherwise noted
 - 20-year figures based on first year of operations activity, projected over 20 years
- ❑ All figures represent additional growth, unless otherwise noted
 - Excludes current activity
- ❑ Focus on key factors:
 - Passengers per year
 - Carloads per year
 - Car VMT reduced (over 20 yrs)
 - Truck VMT reduced (over 20 yrs)
 - Gallons of fuel saved (over 20 yrs)
 - Passenger travel time savings (hours)

Cost/Benefit Example

❑ Reduction of Trucks on Highways (Heartland Corridor):

- Savings in pavement maintenance
- Congestion cost per truck mile
- Environmental/pollution cost
- Fuel savings

= \$666,267,681 over 17 years

❑ This does not include:

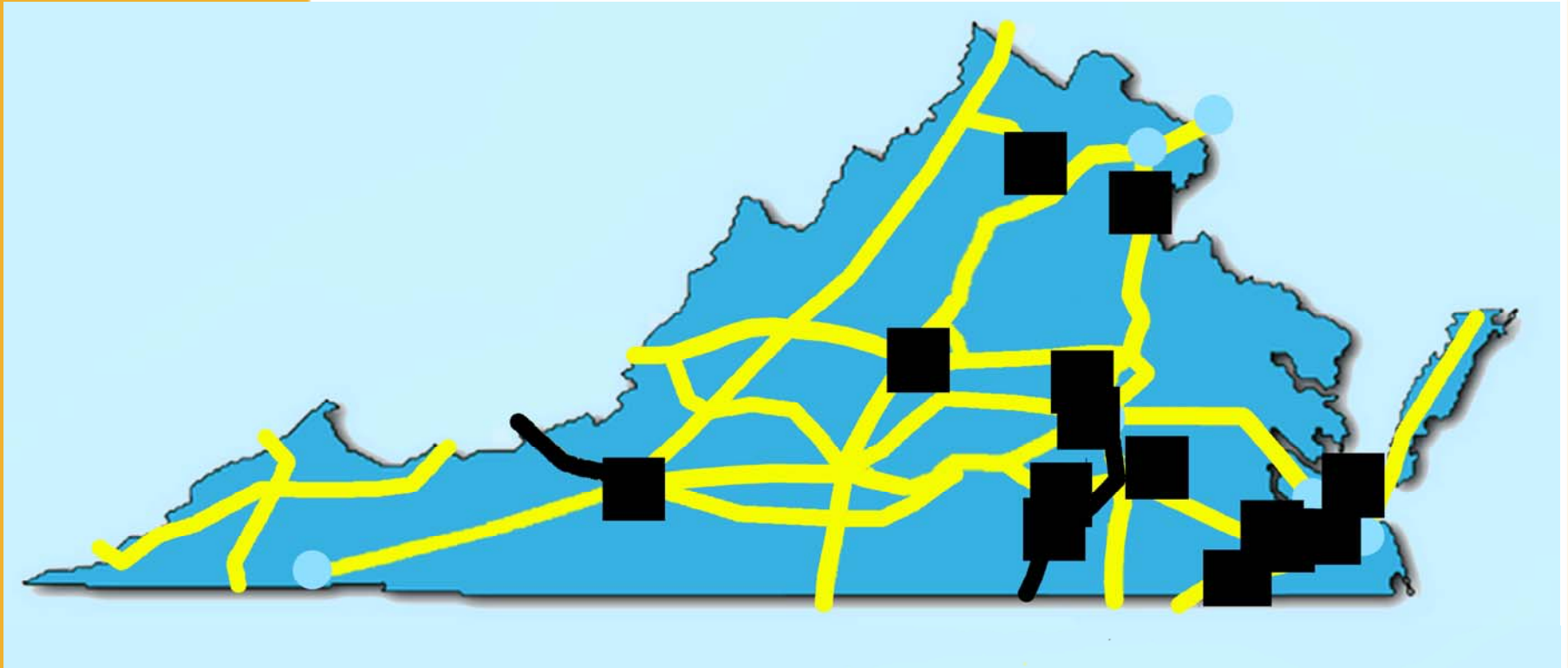
- Increased employment
- Service distance reduction
- Other user benefits

Presentation of Final Applications

www.drpt.virginia.gov



Tier I Projects



06-001 Heartland Corridor- Virginia Components

- ☐ **Description:** Virginia components consist of clearing tunnels to accommodate double stack intermodal trains and constructing an intermodal facility in Roanoke to transfer containers between rail and trucks.
- ☐ **REF project cost:** \$31,936,673 (Total project cost: \$186M, \$38.4M in Virginia)
- ☐ **Recommended REF:** \$22,350,000
- ☐ **Public benefit ratio:** 29.8 to 1
- ☐ **Key factors:**
 - Railcar loads per year: 37,500 (150,000 containers)
 - Truck VMT reduced over 20 yrs: 690,540,000
 - Gallons of fuel saved over 20 yrs: 128,928,000
- ☐ **Assumptions:**
 - Truck mileage alternatives calculated using three routes, I-95, I-64, and I-81
- ☐ **Contractual conditions:**
 - West Virginia improvements must be under contract for concurrent completion schedules with Virginia improvements

06-002 Commonwealth Railway Line Purchase

- ❑ Description: Purchase 10.5 miles of existing rail line from Norfolk Southern Railway between Chesapeake and Suffolk to ensure dual, unimpeded and equitable access.
- ❑ REF project cost: \$6,660,000
- ❑ Recommended REF: \$4,160,000
- ❑ Public benefit ratio: 7.0 to 1
- ❑ Key factors:
 - Railcar loads per year: 7,867
 - Truck VMT reduced over 20 yrs: 30,812,160
 - Gallons of fuel saved over 20 yrs: 5,747,827
- ❑ Assumptions:
 - Only credited CSX carloads as split with 2 other CSX projects:
 - Suffolk Connection and Portsmouth Subdivision Clearances
 - Reduced line purchase by 2 miles
- ❑ Contractual conditions:
 - Virginia's interest in the line purchase must be preserved through a recorded instrument to protect long term, equitable dual access (50+ years)

06-008 APM/Maersk Terminals Rail Yard Expansion

APM Terminals Virginia is constructing a state of the art marine container facility in Portsmouth.

- ☐ **Description:** This project would allow the APM/Maersk facility to go to 6 tracks at the rail yard, doubling their capacity. This project would provide the Hampton Roads region with an alternative to truck-induced congestion while allowing growth at the Port of Hampton Roads.
- ☐ REF project cost: \$18,600,000
- ☐ Recommended REF: \$9,300,000
- ☐ Public benefit ratio: 3.5 to 1
- ☐ Key factors:
 - Railcar loads per year: 128,250
 - Truck VMT reduced over 20 yrs: 29,506,050
 - Gallons of fuel saved over 20 yrs: 5,673,592
- ☐ Assumptions:
 - On dock rail mileage credit only – 2.6 miles
 - Truck drayage to Portsmouth Marine Terminal and NIT mileage averaged 1/3 to CSX and 2/3 to NS

06-009 Suffolk Connection from CSX to Commonwealth Railway

- ☐ **Description:** Construct a connection track from the CSXT Portsmouth Subdivision to the Commonwealth Railway in Suffolk to ensure dual, unimpeded and equitable access.
- ☐ REF project cost: \$5,940,000
- ☐ Recommended REF: \$4,158,000
- ☐ Public benefit ratio: 6.2 to 1
- ☐ Key factors:
 - Railcar loads per year: 7,867
 - Truck VMT reduced over 20 yrs: 26,632,745
 - Gallons of fuel saved over 20 yrs: 4,983,234
- ☐ Assumptions:
 - Only credited CSX carloads as split with two other CSX projects:
 - Commonwealth Railway Purchase and Portsmouth Subdivision Clearances
- ☐ Contractual conditions:
 - CSX commitments on the Richmond/Washington, DC Corridor projects must be met

06-010 Portsmouth Subdivision Height Clearances

- ❑ **Description:** Clear overhead impediments on the VA portion of the Portsmouth Subdivision (rail line that runs between Portsmouth and Weldon, NC) to provide double stack freight service over a 560-mile market, connecting Portsmouth with Atlanta and the Southeast. These improvements would allow double stack movement to the VA/NC state line. CSXT will fund improvements between the VA/NC line and Atlanta.
- ❑ REF project cost: \$2,238,000
- ❑ Recommended REF: \$1,556,600
- ❑ Public benefit ratio: 16.3 to 1
- ❑ Key factors:
 - Railcar loads per year: 7,867
 - Truck VMT reduced over 20 yrs: 27,413,760
 - Gallons of fuel saved over 20 yrs: 5,137,248
- ❑ Assumptions:
 - Only credited CSX carloads as split with two other CSX projects:
 - Commonwealth Railway Purchase and Suffolk Connection
- ❑ Contractual conditions:
 - CSX commitments on the Richmond/Washington, DC Corridor projects must be met
 - NC improvements must be under contract for concurrent completion schedules with VA improvements

06-012 North Acca Yard Switches

- ❑ **Description:** Replace 13 pneumatic switches at North Acca Yard (City of Richmond) with more reliable electric dual control (remote or manual operation) switches. Dual control allows either passenger or freight trains to manually operate the switch without the presence of a Signal Maintainer. Associated signals and communication systems would also be upgraded. Project would include installation of switch heaters.
- ❑ REF project cost: \$3,993,000
- ❑ Recommended REF: \$2,795,100
- ❑ Public benefit ratio: 15.1 to 1
- ❑ Key factors:
 - Railcar loads per year: 21,500
 - Truck VMT reduced over 20 yrs: 48,375,000
 - Gallons of fuel saved over 20 yrs: 7,863,840
 - Passenger travel time savings (hours): 14,400
- ❑ Assumptions:
 - One minute of travel time savings per passenger trip
- ❑ Contractual conditions:
 - CSX commitments on the Richmond/Washington, DC Corridor projects must be met

06-015 a Richmond Port Passenger/Freight Improvements

- ☐ **Description:** The project related to this study would:
 - Provide dual, unimpeded and equitable access to the Port of Richmond
 - Provide a TDX connection to Main St. Station
 - Add four additional passenger stops at Main St. Station per day
 - Provide turning and storage facilities for passenger trains
- ☐ **REF project cost:** \$200,000 (total project cost: approximately \$6M)
- ☐ **Recommended REF:** \$140,000
- ☐ **Public benefit ratio:** 10.2 to 1
- ☐ **Key factors:**
 - Passengers per year: 29,200
 - Railcar loads per year: 3,500
 - Car VMT reduced over 20 yrs: 52,560,000
 - Truck VMT reduced over 20 yrs: 40,950,000
 - Gallons of fuel saved over 20 yrs: 7,912,800
- ☐ **Assumptions:**
 - Feasibility study
 - Cost/Benefit information based on total project
- ☐ **Contractual conditions:**
 - Standard contract provisions for studies
 - Match provision under review by the Office of the Attorney General

06-020. Charlottesville Connecting Track Upgrade

- ❑ Description: Upgrade connecting track in Charlottesville between Norfolk Southern and Buckingham Branch. Upgrade includes installation of approximately 225 ties, surfacing 1,500 feet of track and replacement of two epoxy joints. Would allow Amtrak to enter and exit the Buckingham Branch line at Charlottesville instead of Orange.
- ❑ REF project cost: \$30,000
- ❑ Recommended REF: \$21,000
- ❑ Public benefit ratio: 10.4 to 1
- ❑ Key factors:
 - Passenger travel time savings annually: 5,000 hours
- ❑ Assumptions:
 - 10 minutes per passenger travel time savings
 - Cost/benefit ratio calculated for 5 years of operation

06-022. VRE Gainesville-Haymarket Extension

Feasibility Study

- ❑ **Description:** Would study the feasibility of extending VRE commuter rail service between the City of Manassas and Haymarket (Prince William Co.). Would narrow down costs, provide construction phasing, update ridership forecasts, identify potential environmental and ROW issues, and determine the potential impact of the extension on the existing VRE system.
- ❑ REF project cost: \$1,000,000 (total project cost: \$200M)
- ❑ Recommended REF: \$700,000
- ❑ Public benefit ratio: 10.5 to 1
- ❑ Key factors:
 - Passengers per year: 775,000
 - Railcar loads per year: 302,000
 - Car VMT reduced over 20 yrs: 372,000,000
 - Truck VMT reduced over 20 yrs: 344,280,000
 - Gallons of fuel saved over 20 yrs: 79,017,600
 - Passenger travel time savings (hours): 129,167
- ❑ Assumptions:
 - Feasibility study only
 - Cost/benefit based on total project, assuming \$200 million with 50% federal and/or private funding
- ❑ Contractual conditions:
 - Standard contract provisions for studies

06-023 a. VRE Cherry Hill Station and Third Track

- ☐ **Description:** Would improve rail service between Powell's Creek and Arkendale (Prince William Co.) on the Fredericksburg VRE line. The four-year project is part of a larger multi-phased corridor improvement project and would include:
 - construction of a third track in the CSX right-of-way
 - design and construction of a new VRE station and slope stabilization at Cherry Hill
 - a public commuter parking structure to serve the station
 - a new highway grade separation (bridge) over CSX
- ☐ REF project cost: \$3,571,429 (total project cost: approx. \$72M)
- ☐ Recommended REF: \$2,500,000
- ☐ Public benefit ratio: 4.2 to 1
- ☐ Key factors:
 - Passengers per year: 275,000
 - Car VMT reduced over 20 yrs: 200,000,000
 - Gallons of fuel saved over 20 yrs: 10,000,000
 - Passenger travel time savings (hours): 74,013
- ☐ Assumptions:
 - Feasibility study only
 - Cost/benefit based on total project
- ☐ Contractual conditions:
 - Standard contract provisions for studies

06-025. Intermodal Improvements- Crewe to Suffolk

- ❑ Description: This project would:
 - improve the connection with Commonwealth Railway in Suffolk for daily train load movements of up to 120,000 containers annually in 2010
 - establish a block swap yard in Crewe (Nottoway Co.)
 - Add two tracks at the auto loading/unloading facility in Poe (Petersburg)
 - Add one additional track and carload switching facility in Broadway Yard in Petersburg
- ❑ REF project cost: \$7,470,000
- ❑ Recommended REF: \$4,229,000
- ❑ Public benefit ratio: 13.4 to 1
- ❑ Key factors:
 - Railcar loads per year: 17,500
 - Truck VMT reduced over 20 yrs: 63,665,000
 - Gallons of fuel saved over 20 yrs: 11,435,900
- ❑ Assumptions:
 - Rail Enhancement Funding reduced by \$1.0 million by applicant

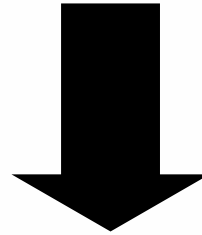
DRPT-1. VA/NC Passenger Rail EIS

- ❑ **Description:** This project would:
 - Complete the Tier II Environmental Impact Statement (EIS) for the segment of the Southeast High Speed Rail Corridor (SESHR) between Main St. Station and Raleigh, NC.
 - Address issues related to the potential connection of Hampton Roads to the SESHHR Corridor
 - Narrow down costs, provide construction phasing, update ridership forecasts, and identify potential environmental and right-of-way issues
- ❑ **REF project cost:** \$2,785,000 (total project cost: \$1.8B, \$334M for Richmond to NC state line portion)
- ❑ **Recommended REF:** \$1,500,000
- ❑ **Public benefit ratio:** 8.9 to 1
- ❑ **Key factors:**
 - Passengers per year: 1,946,880
 - Car VMT reduced over 20 yrs: 2,147,851,113
 - Gallons of fuel saved over 20 yrs: 88,317,656
 - Passenger travel time savings (hours): 1,460,160
- ❑ **Assumptions:**
 - EIS only
 - Cost/benefit based on total project components in Virginia, assuming \$334M with 50% federal and/or private funding
- ❑ **Contractual conditions:**
 - Standard contract provisions for studies
 - Match provision under review by the Office of the Attorney General

Conclusion: These Projects Will Deliver Value for Money

- ❑ Benefits far exceed the cost
- ❑ For example, with these projects out of the Tier 1 group:
 - Heartland Corridor- Virginia Components
 - Commonwealth Railway Line Purchase
 - APM/Maersk Terminals Rail Yard Expansion
 - Suffolk Connection from CSX to CWRV
 - Portsmouth Subdivision Height Clearances
 - Intermodal Improvements- Crewe to Suffolk
- ❑ \$45.9 million in investment will deliver:
 - Starting in 2007: 200,000 more trucks off the road
 - By 2025: 2-3 million more trucks off the road

\$46 M in state rail investment



**200,000 trucks removed from
our roads (2007)**

**2-3 million trucks removed
from our roads (2025)**

Market share increase: 8%



Virginia Department of Rail and Public Transportation

The Smartest Distance Between Two Points

www.drpt.virginia.gov

info@drpt.virginia.gov

804-786-4440



www.drpt.virginia.gov